

Dean L. Engelhardt et al.

Serial No.: 09/302,816

Filed: March 3, 1998

Page 3 [Amendment Under 37 C.F.R. §1.115

(In Response To The August 9, 2001 Office Action) -- November 12, 2002]

**KINDLY AMEND THIS APPLICATION AS FOLLOWS:**

**In The Claims:**

Add new replacement claim 91 as follows:

91. (Amended) An *in vitro* process for producing more than one copy of a specific nucleic acid, said process being (1) independent of a requirement for the introduction of an intermediate structure for the production of said specific nucleic acid, and (2) independent of a requirement for the introduction of an endonuclease, said process comprising the steps of:

- (a) providing a nucleic acid sample containing or suspected of containing the sequence of said specific nucleic acid;
- (b) contacting said sample with a mixture comprising:
  - (i) nucleic acid precursors;
  - (ii) one or more specific nucleic acid primers each of which is complementary to a distinct sequence of said specific nucleic acid, and
  - (iii) an effective amount of a nucleic acid producing catalyst; and
- (c) allowing said mixture to react under isostatic conditions of temperature, buffer and ionic strength, thereby producing more than one copy of said specific nucleic acid.

Add new claims 151-168 as follows:

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-- 151. (NEW) The process of claim 150, wherein said protein-nucleic acid construct comprises a double-stranded nucleic acid. --

-- 152. (NEW) The process of claim 150, wherein said sequence coding for a protein comprises a sequence for said RNA polymerase. --

-- 153. (NEW) The process of claim 150, wherein said sequence coding for a protein comprises a sequence for said RNA polymerase wherein said sequence coding for a protein comprises a protein other than said RNA polymerase. --

-- 154. (NEW) The process of claim 150, wherein said sequence coding for a protein comprises a sequence for said RNA polymerase and a sequence for a protein other than said RNA polymerase. --

-- 155. (NEW) The process of claim 150, wherein said sequence coding for a protein comprises a sequence for a second RNA polymerase that is different from said RNA polymerase in said construct. --

-- 156. (NEW) The process of claim 155, further comprising a second promoter for said second RNA polymerase. --

-- 157. (NEW) The process of claim 156, further comprising a sequence for a protein, wherein said protein is transcribed from said second promoter. --

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-- 158. (NEW) An *in vivo* process for producing a specific nucleic acid, said process comprising the steps of:

(a) providing a conjugate which is capable of producing a specific nucleic acid when present in a cell, said conjugate comprising a protein-nucleic acid construct, said construct comprising:

- (i) at least one promoter;
- (ii) at least one segment of said specific nucleic acid comprising a template for transcription; and
- (iii) an RNA polymerase;

and (b) introducing said conjugate into a cell, thereby producing said specific nucleic acid. --

-- 159. (NEW) The process of claim 158, wherein said specific nucleic acid being produced comprises sense RNA or antisense RNA. --

-- 160. (NEW) The process of claim 159, wherein said sense RNA codes for a protein. --

-- 161. (NEW) The process of claim 160, wherein said protein coding sense RNA codes for said RNA polymerase. --

-- 162. (NEW) The process of claim 160, wherein said protein coding sense RNA codes for a protein other than said RNA polymerase. --

-- 163. (NEW) The process of claim 160, wherein said protein coding sense RNA codes for said RNA polymerase and a protein other than said RNA polymerase. --

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-- 164. (NEW) The process of claim 160, wherein said protein coding sense RNA comprises a sequence for a second RNA polymerase that is different from said RNA polymerase in said construct. --

-- 165. (NEW) The process of claim 164, further comprising a second promoter for said second RNA polymerase. --

-- 166. (NEW) The process of claim 165, further comprising a sequence for a protein, wherein said protein is transcribed from said second promoter. --

-- 167. (NEW) An *in vivo* process for producing a specific nucleic acid, said process comprising the steps of:

(a) providing a conjugate comprising a protein-nucleic acid construct, said conjugate being capable of producing a nucleic acid when present in a cell, wherein said construct comprises at least one complementary sequence to a primer present in said cell; and

(b) introducing said conjugate into a cell, thereby producing said specific nucleic acid.

-- 168. (NEW) The process of claim 167, wherein said polymerase comprises a DNA polymerase or reverse transcriptase.

Cancel claims 142-149.

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